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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (currently amended) A method of continuously casting metals, comprising applying a non-moving, single-phase vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

wherein non-moving magnetic field is defined in that a wave representing an intensity distribution in a direction of a longitudinal width of the casting mold thereof does not move in a certain direction.

2. (original) The method according to Claim 1, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of said mold along a transverse width thereof to lie side by side along a longitudinal width of said mold, and supplying a single-phase AC current to each coil.

3. (original) The method according to Claim 1, wherein said iron core comprises individual single iron cores separate from each other, or a comb-shaped iron core having a comb-teeth portion over which coils are wound.

4. (original) The method according to Claim 1, wherein said single-phase AC current has frequency of 0.10 to 60 Hz.

5. (original) The method according to Claim 2, wherein said single-phase AC current has frequency of 0.10 to 60 Hz.

6. (original) The method according to Claim 3, wherein said single-phase AC current has frequency of 0.10 to 60 Hz.

7-8. (canceled)

9. (original) The method according to Claim 1, wherein a DC magnetic field and an AC magnetic field for producing said non-moving, vibrating magnetic field are applied in superimposed fashion along a transverse width of said mold.

10. (original) The method according to Claim 9, wherein the superimposed magnetic field is applied from at least one pair of magnetic poles arranged to face each other above or/and below an ejection port of an immersion nozzle.

11-18. (canceled)

19. (previously presented) The method according to claim 1, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each comprising an iron core and a coil wound over said core, in a facing relation on opposite sides of said mold along a transverse width thereof to lie side by side along a longitudinal width of said mold; and

applying a single-phase AC current having a frequency of 0.10 to 60 Hz, to each said coil.

20. (currently amended) A method of continuously casting metals, comprising applying a non-moving, single-phase vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

21. (currently amended) A method of continuously casting metals, comprising the step of:

applying a non-moving, single-phase vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

the non-moving magnetic field being a waveform representing an intensity distribution in a direction of a longitudinal width of the casting mold, a phase of the waveform remaining constant over time in that the waveform does not move in the direction of the longitudinal width of the casting mold.

22. (currently amended) A method of continuously casting metals, comprising the step of:

applying a non-moving, single-phase vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

the non-moving, vibrating magnetic field being a waveform alternating in opposite directions and, during the same time, representing an intensity distribution in a direction of a longitudinal width of the casting mold, a phase of the waveform remaining constant over time in that the waveform does not move in the direction of the longitudinal width of the casting mold.

23. (previously presented) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

24. (previously presented) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which

comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

25. (previously presented) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between adjacent electromagnets arranged adjacent to each other on a same side of the mold producing vibrating flows only in the direction of the longitudinal width of the mold.

26. (previously presented) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between adjacent electromagnets arranged adjacent to each other on a same side of the mold producing vibrating flows only in the direction of the longitudinal width of the mold.

27. (previously presented) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between opposing

electromagnets arranged on opposite sides of the mold producing vibrating flows only in a direction transverse to the longitudinal width of the mold.

28. (previously presented) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between opposing electromagnets arranged on opposite sides of the mold producing vibrating flows only in a direction transverse to the longitudinal width of the mold.